

BADGER STATE

Smoke Signals

For Radio Amateurs • By Radio Amateurs

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Special Event Station W9ZL at the EAA



The Fox Cities Amateur Radio Club operated Special Event Station W9ZL for several days during the Experimental Aircraft Association's annual Convention and Fly-In in Oshkosh. The club has operated the station for several years during the world's largest aviation convention, held at Wittman Field. Shown in this photo are Don Dean, N8IOJ, operator (center) and Dave Boland, W9NWX, logger (left). Looking on at right is Ryan Kosiorek, son of Rick (WX9C) and Judy (N9JLQ) Kosiorek. Read more about W9ZL at the EAA on page 6 of this issue.

- Photo by Dave Vanevenhoven/N9LVS

Soviet Hams Instrumental in Resistance to Coup Attempt

Romeo Stepanenko, of 3W3RR and YA0RR, made many new friends during his June-July visit to the U.S. Little did any of those new American friends dream that just a few weeks hence, Stepanenko would be at the heart of radio operations from the Russian White House, center of resistance to the attempted coup de etat in the Soviet Union.

During the unrest, word filtered out of the USSR via Amateur Radio operators such as Ed Kritsky, NT2X, Gene Walsh, N2AA, and others who were in Russia at the time. Stepanenko was in Moscow, to pick up Yaesu equipment brought from Japan by Kritsky for use in the operation from the Burma operation, XY0RR.

On August 20, many amateurs received a "chain fax" from Stepanenko. The expedition would be delayed, he said, but the group (also including 4K2OT, UA9MA, RA3AUU, and RA4HA) expected to be on by the end of August.

"At the time all participants are in Moscow," Stepanenko said in his fax message, "safe and are very busy with organization of emergency broadcasting R3A from Boris Eltsin HQ with the team of Russian Amateur Radio Emergency Services (RARES - see sidebar story on this page).

"Listen to R3A on 14.175 and 7.044 the only real and trustworthy information."

As the word spread many amateurs did listen, mostly to 14.175. A few days later the U.S. tele-

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ELMER

By Rich Regent, K9GDF



Swapfests and Other Social Events

SATURDAY, OCTOBER 5, 1991. Fallfest '91 sponsored by the Green Bay Mike & Key Club, at the Green Bay Community Center, 1637 Dousman St. Amateur License exams administered between 9:00 am and 12:00 noon. For further information contact: Green Bay Mike & Key Club, P.O. Box 12631, Green Bay, WI 54307. (414) 432-3491.

SATURDAY, OCTOBER 12, 1991. HAMFEST MINNESOTA & computer expo. Indoor show and Flea market. Hennepin Technical College, 9000 Brooklyn Blvd, Brooklyn Park, MN, north of I-694 and Hwy 169. Sponsored by the Twin Cities FM Club, PO Box 5598, Hopkins MN 55343. Contact Hamfest Minnesota Information Line: (612) 535-0637

SUNDAY, OCTOBER 13, 1991. KMRA Swapfest, Waukesha, WI. Contact: KMRA Swapfest, P.O. Box 276, Waukesha, WI 53187-0276. (see ad in last months BSSS).

SUNDAY, NOVEMBER 3, 1991. The FOXCITIES HAMFEST 91, will be held at the Starlite Club on Hwy. 55 North of Kaukauna. For information contact Don Baker, NB9J, 621 W. 7th ST., Kaukauna, WI. 54130. (414) 766-3886.

SATURDAY, JANUARY 11, 1992. Midwinter Swapfest, sponsored by the West Allis RAC, at

Waukesha Exposition Center, Waukesha, WI. For more information see the ad on the last page.

SUNDAY, FEBRUARY 8, 1992. Midwinter Madness Hobby Electronics Show, Blain Minn. Robbinsdale ARC, P.O. Box 22613, Robbinsdale. MN 55422.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings

Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the September 1991 meetings column for the latest complete listing. There have been on additions or changes brought to our attention since that listing. If you would like to see your club listed in the Club Meetings please send the information to Ken Ebnetter, K9EN.

example, if a club meets on the 4th of the month, the material should be sent no later than the 11th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebnetter.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebnetter.

Swapfest information should be sent to Ken Ebnetter. Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

Conditions for Reprinting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. This credit is mandatory, and no material may be printed unless it is given. This newspaper is produced by volunteer Radio Amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

The Test Point

Amateur Radio examinations scheduled in and around Wisconsin

The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

October 5, 1991	Green Bay, WI Green Bay Mike & Key swapfest
October 5, 1991	Houghton, MI
October 7, 1991	St Paul, MN
October 11, 1991	Clinton, IA
October 12, 1991	Bloomington, MN (BARC)
October 12, 1991	Eau Claire, WI
October 12, 1991	Oak Forest, IL
October 13, 1991	Waukesha (BE) KMRA Swapfest
October 15, 1991	Milwaukee, WI (MRAC)
October 19, 1991	Ashland, WI
October 26, 1991	Milwaukee, WI (MRAC)
October 26, 1991	Brooklyn Park, MN
October 26, 1991	Manistee, MI
November 2, 1991	Menomonie, WI
November 3, 1991	Kaukauna, WI Foxcities hamfest
November 4, 1991	St Paul, MN
November 9, 1991	Bloomington, MN (BARC)
November 9, 1991	Oak Forest, IL
November 9, 1991	Dixon, IL
November 10, 1991	Danville, IL
November 11, 1991	Onalaska, WI
November 16, 1991	Milwaukee, WI (BE)
November 16, 1991	St Paul Park, MN (SEMARC)
November 17, 1991	Des Moines, IA
November 19, 1991	Milwaukee, WI (MRAC)
November 30, 1991	Milwaukee, WI (MRAC)
December 7, 1991	Stevens Point, WI
December 7, 1991	Dubuque, IA
December 7, 1991	St Paul, MN (SPARC)
December 14, 1991	Bloomington, MN (BARC)
December 17, 1991	Milwaukee, WI (MRAC)
December 21, 1991	Milwaukee, WI (BE)
December 21, 1991	St Paul Park, MN (SEMARC)
January 18, 1992	Milwaukee, WI (BE)
February 15, 1992	Milwaukee, WI (BE)
March 21, 1992	Milwaukee, WI (BE)
March 28, 1992	Menomonie, WI
April 18, 1992	Milwaukee, WI (BE)
May 2, 1992	Ozaukee, WI (BE) Ozaukee swapfest
November 7, 1992	Menomonie, WI
November 16, 1991	Milwaukee, WI (BE)

Monthly, First Sat. Racine, WI
(except January, July & August)
Monthly, Last Sat. Tomahawk, WI
(January thru October only)
Monthly, Third Sat. Loves Park, IL

Many of the larger Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Badger State Smoke Signals

Amateur Radio Education and Information

CHAIRMAN: Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

EDITOR: Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031.

TREASURER: Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

CONTRIBUTING EDITOR: Richard R. Regent, K9GDF, 5003 South 26th Street, Milwaukee, WI 53221.

Subscriptions

1 year	(12 issues)	\$9.75
2 years	(24 issues)	\$18.00
3 years	(36 issues)	\$26.00

Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than SEVEN DAYS after the club's meeting. For

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 25¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$5.25 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB MRAC/VEC

1991 examination dates:

TUESDAY EVENING: October 17, November 19 & December 17., 1991

SATURDAY MORNING: October 26, and November 30, 1991.

TUESDAY DATES: At 6:30 p.m. at church, 11709 West Cleveland Ave., West Allis, WI. For Additional Information Contact; Jack Krause, W9JK, 1737 N. 116th St., Wauwatosa, WI 53226. (414) 774-6999 or Les Peterson, W9YCV, 9741 W. Howard Ave., Greenfield, WI 53228. (414) 321-4745.

SATURDAY DATES: 8:30 a.m. at the Wauwatosa Savings and Loan, 7500 West State St. (Lower level) Please arrive promptly so testing can be completed by 12:00 noon.

Bring along your original license and two (2) good quality photocopies, plus two forms of identification, such a driver's license, etc. Also required are a pen and \$5.00 for the exam fee. WALK-INS are welcome. To register in advance, use a post card: print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, 1737 North 116th Street, Wauwatosa, WI 53226, or to Ed Seruga, KE9JJ, 3840 South 43rd Street #21, Milwaukee, WI 53220. Telephones: (414) 774-6999 or (414) 545-6299.

BADGER EXAMINERS (BE) - MILWAUKEE

Oct. 13. - KMRA Swapfest (Waukesha)

Nov. 16, & Dec. 21, 1991

Jan. 18, Feb. 15, Mar. 21, & Apr. 18 1992.

May 2, 1992. Ozaukee swapfest. (Ozaukee)

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. to 3:30 p.m. at St. Nicholas Church basement, 5345 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Walk-ins are welcome. CW waiver forms are available. Please send a request with an SASE prior to taking an exam, so it is ready when attending the session. To register in advance, send a post card with your name, test or tests

you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

MADISON, WISCONSIN (ARRL/VEC)

Exams will be held at Fire Station #6, on Badger Rd. (Just off South Park - Enter East door.) The test sessions will begin promptly at 8:00 a.m. Subsequent exams will occur in the fall of 1991. To be scheduled.

EAU CLAIRE, WISCONSIN

1991 dates: Oct. 12

Exams given at the UW/EC Maintenance/Central Stores Building.

KAUKAUNA, WI

November 3, 1991

Held at the FOXCITIES HAMFEST 91, Starlite Club on Hwy. 55, North of Kaukauna. Exams begin at 9:00 a.m. Contact Larry, KD9IA at (414) 788-3823, or Don, NB9J at (414) 766-3886.

MENOMONIE WI - ARRL/VEC

Saturdays: Nov. 2, 1991 and Mar. 28 and Nov. 7, 1992.

The Northern Wisconsin Radio Club administers exams from 9 to 11:30 a.m. at the Westconsin Credit Union Building, lower level conference room, 444 S. Broadway, Menomonie, WI. Use front entrance of building. Walk-ins are accepted only to extent of available exam materials.

Contact: Jim Ley, NX9F, (715) 235-3998 (H); or (715) 232-1397 (O).

APPLETON, WI (ARRL/VEC)

Sponsored by the Fox Cities ARC. All exams are held at Madison Jr. High School, 2020 S. Carpenter St., Appleton, WI. Contact: KD9IA, (414) 788-3823

ONALASKA, WI

November 11, 1991

Sponsored by the Riverland ARC. Held at the Onalaska Community Center, 515 Quincy St. All exams start at 7:00 pm. Preregistration recommended. Contact: Rick Williams KV9U, 524 Troy St., Onalaska, WI 54650. (608) 783-8028. or Dick Low, KOJYB, 1520 Nakomis Ave., La Crosse, WI 54603. (608) 784-9176 (After Apr. 5th.)

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Exams are given at 9:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted. Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

DUBUQUE, IOWA - ARRL/VEC

Exam dates for 1991 are: December 7.

The Great River Amateur Radio Club VEs are now field stocked, which means retests can be given immediately.

Exams are held at 9:00 a.m. at the Central Fire Station, 9th and Central in Dubuque. Use the basement entrance on 9th Street. For more info, contact Mike Jozefowicz, NSOU, 2735 Hickory Hill, Dubuque IA 52001, or call Mike at (319) 582-8563. Talk-ins are on the 147.84/24 and 147.63/03 repeaters. -- (Thanks Art Evans, KA9KLZ)

LOVES PARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Eksten, W9SS, 5006 N. Second St., Loves Park, IL 61111. (815) 877-6768.

ADJACENT STATE TESTS. (ARRL-VEC)

Clinton, IA, James N Berkey, (319) 242-1281
Des Moines, IA, Jim Snapp, (515) 967-3890
Oak Forest, IL, William Koltz, (312) 247-0650
Dixon, IL, Lavern Johnson (815) 376-5444
Danville, IL, Betty Collins, (317) 793-3573
Houghton, MI, Edwin Kohn, (906) 337-0451
Manistee, MI, Gerald Young, (616) 864-3077

MINNESOTA TESTS

October 7, 1991 St Paul, MN
October 12, 1991 Bloomington, MN (BARC)
October 26, 1991 Brooklyn Park, MN
November 4, 1991 St Paul, MN
November 9, 1991 Bloomington, MN (BARC)
November 16, 1991 St Paul Park, MN (SEMARC)
December 7, 1991 St Paul, MN (SPARC)
December 14, 1991 Bloomington, MN (BARC)
December 21, 1991 St Paul Park, MN (SEMARC)

Locations and contacts:

St. Paul Radio Club (SPRC)
St. Lukes School (cafeteria)
1065 Summit Ave.
St. Paul, MN
contact: Jay Bellows (612) 222-7253

Bloomington Amateur Radio Club (BARC)
Creskide Community Center
98th and Penn Ave. So.
Bloomington, MN
contact: Art Putt (612) 881-7181

SE Metro Area Radio Club (SEMARC)
St. Thomas Aquinas Activity Bldg.
920 Holly Ave.
St. Paul Park, MN
contact: David Harrell (612) 459-1647

(continued on page 19)

Wisconsin Nets Association Ltd.

Rob Hummel, WA9ZTY, Secretary • 202 Midvale Drive • Marshall, WI 53559

Section Manager's Notes



Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

Exams November 2nd in Menomonie and Racine; and November 11th in Onalaska.

November 3rd, Fox Cities Hamfest at Starlite Club on Highway 55 just north of Kaukauna; exams will be held, info from NB9J.

Milwaukee Radio Amateur exams are November 6th and November 30th, info from W9JK or KE9JJ.

November 9th, Milwaukee Repeater Club will hold the 6.91 Friendly Fest at Serb Hall with exams by MRAC.

Milwaukee Chapter of 10-10 International Net meets on 28.365 MHz, Sundays at 9 p.m. and Wednesdays at 8 p.m.

AA9AO of Green Bay Mike and Key Club is HF Awards Manager, can help with WAS applications.

Outagamie ARES Net meets on 145.10 MHz, Wednesdays at 9 p.m.

New officers of W/K ARC: Pres. KA9TEP and Sec./Treas. WA9TZE.

Wisconsin Nets

Net	WNA	Freq.	UTC	CDT	Mgr.
BWN	Yes	3984	1100	0600	W9AYK
BEN	Yes	3985	1700	1200	WB9ESM
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	KA9FVX
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9NGP
NWTN	Yes	34/94	2330	1830	NS9Q
(Rhinelander area)					
6:30 Net	No	01/61	2330	1830	KA9OMC
Gr. Bay	No	72/12	0145	2045	WB9NRK
(Green Bay area)					
ARES	No	4.65/5.25	0100	2000	
(South East/South Central Wisconsin)					
RACES	No	3993.5	1715	1215	WC9AAG
(USB Tuesday and Thursday)					
RACES	No	3993.5	1300	0800	WA9OAY
(LSB Sunday)					

WA9K of Rhinelander wonders if his 10-year old son, who is waiting to receive a call after passing the novice exam, is youngest ham in Wisconsin.

WF9I of Menomonie is happy that his youngest son is now N9LHX; wife is N9GLG, and other son is N9JRC.

AA7CS of Beaver Dam has great club program

Racine Area Hams Help Locate Faulty Emergency Sirens

After thirteen emergency warning sirens had been serviced in the Racine area, radio amateurs helped verify which of the sirens were working and which needed further repair.

A request for assistance for the siren test was made by David Maack, the Racine City/County Director of Emergency Government. Racine County ARES Emergency Coordinator Lloyd Gorsiski, WB9RGO, responded by locating fourteen hams who were posted at each siren's location. Of the thirteen sirens, the amateurs reported that five did not work properly and needed further service work.

The results of the siren test were reported to Emergency Government by David Voss, WB9-USI, who is Deputy Coordinator of Racine City/County Emergency Government.

- Arne Moxness, KA9ZPY, Secretary
Racine Megacycle Club

on batteries and chargers.

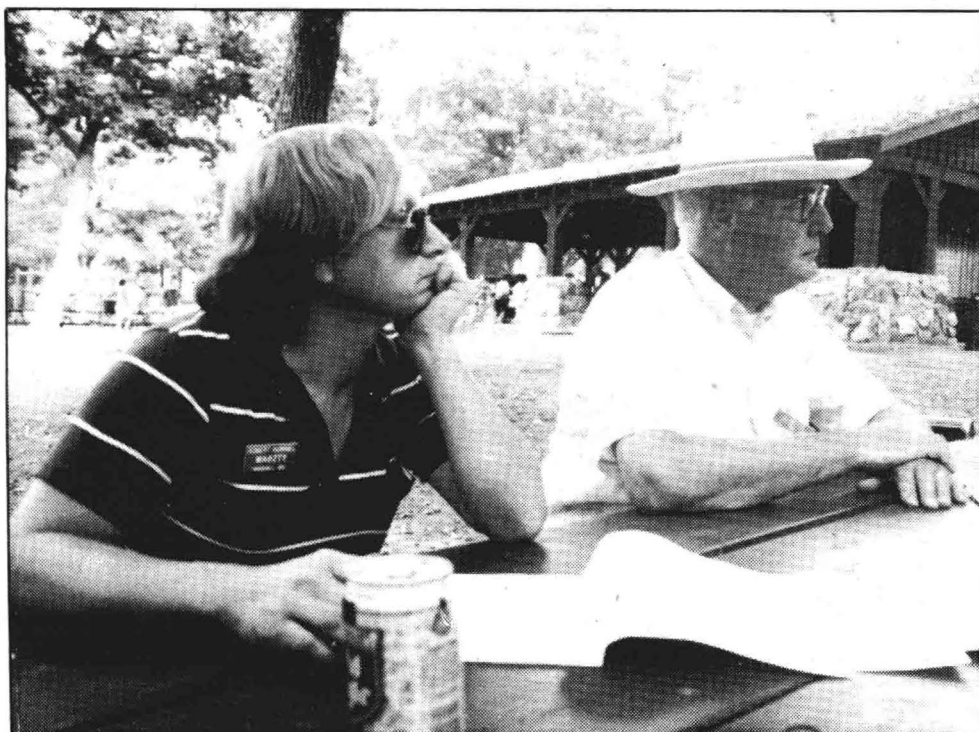
Miller Valley ARC meets at 703 North 39th Street, Tuesdays at 6:30 p.m.

KA9QLP has 105 countries confirmed using CB transceiver converted to 10 meter operation.

Sorry to report Silent Keys W9DQS, WB9UBY, W9AAZ and W9EWW.

Thought of the month: *If you consult enough experts you can confirm any opinion.* □

Wisconsin Nets Association Picnic • September 7, 1991 Ochsner Park • Baraboo, WI



WNA Net Managers and Net Delegates met during the WNA Picnic on September 7 in Baraboo. In the photo at left, WNA Chairman Don Stenz, K9KSA, wearing his chic straw hat, presides over the meeting, while the new



Secretary, Rob Hummel, WA9ZTY, takes minutes as he listens to the proceedings. The photo at right is a general view of the meeting. Another photo is on page 8, and others are elsewhere in this issue. - K9ZZ photo



GET ON PACKET WITHOUT TNC OR RADIO: N9JXA of Greenfield has a ham radio bulletin board system available between 8 a.m. and midnight. At other times the BBS is available to access packet radio on 146.09 MHz. If you want to be on packet radio and have only a computer and a modem, but not a TNC or a radio, you can telephone (414) 543-9060 and make arrangements. N9JXA has an XT Tandy 1000, and encourages everyone to use the BBS, even if only browsing.

- Rich Regent, K9GDF

EXPIRING IN THE YEAR 2001: A new ham, Elroy, KB9GZN, licensed for two weeks, was at a swapfest looking for call sign badges. His license, good for the ten-year term, expires in the year 2001.

- Rich Regent, K9GDF

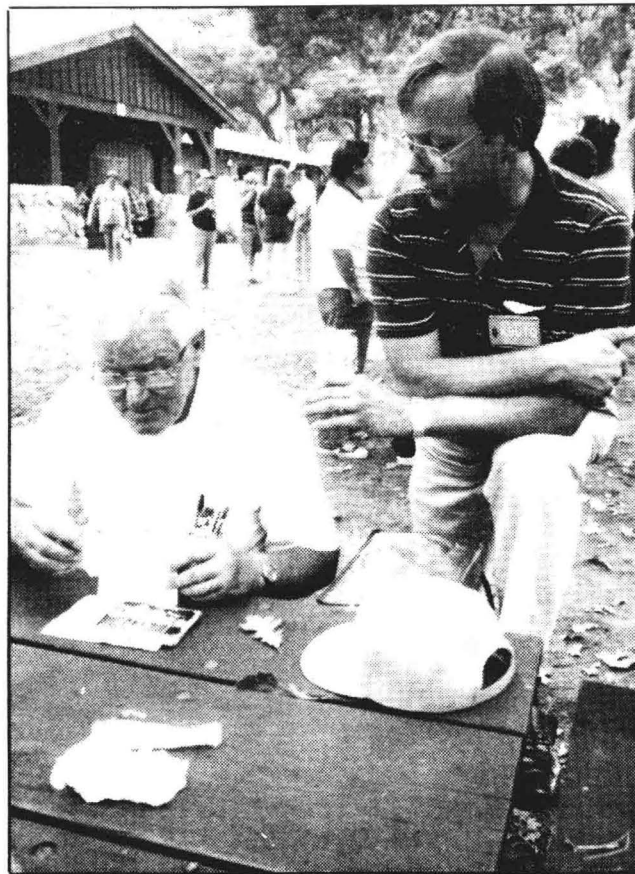
WELCOME TO MARK THOMPSON, WB9-QZB, whose editorial column will appear here in *Badger State Smoke Signals* on a monthly basis. Mark's editorials are also carried on the RAIN Dial-Up news service, heard on many repeaters in the United States and elsewhere. His editorials will usually be thought-provoking, and sometimes controversial.

Mark's parents reside in Baraboo, which is also the home of BSSS World Headquarters. Mark's dad is John, WB9SVL.

- Editor

IN THE TEN MONTHS ending in July, 31,385 new amateurs were licensed, more than half of them in the four months following the advent of a code-free Technician class ticket. New Novice license figures remain healthy: 1,088 in June, and 1,662 in July.

- The ARRL Letter, 9/5/91



Les Peterson, W9YCV (left), enjoys looking through an album of photos taken by Gene Santoski, K9UTQ (right) of Gene's daughter, who is in the U.S. Naval Academy at Annapolis, Maryland. This photo was taken at the WNA Picnic in Baraboo on September 7.

1991 ARRL HANDBOOKS ARE SOLD OUT. The last eight have gone to Tirana for the Albania Project. The 1992 edition will be available in late October.

- The ARRL Letter, 9/5/91

THE LEAGUE'S NEW Novice-Technician Instructor Guide has been sent to the printer. Modularized lesson plans allow the teaching of Novice or Novice-Technician material either with or without the Morse code. School teachers will find the new guide particularly useful, as each teaching module has a list of objectives, extensive use of graphics is supported, and instructors may vary the format according to their needs. Quizzes are included with each module. The authors welcome feedback from users of the Guide. The new guide should be available now. The price is \$6 plus \$3.50 shipping and

Handicap Must Extend More than 365 Days

FCC Clarifies Handicapped Code Exemption Procedures

The Federal Communications Commission has clarified procedures for severely handicapped applicants for 13 or 20 WPM Morse Code exemptions. Exemption requests including a physician Certification of Disability and patient's release may only be submitted through administering VE teams. Those VEs must sign the Form 610 application, and must issue a Certificate of Successful Completion of Examination to the applicant indicating that Element 1C credit is given, and specifying any resulting upgrade earned.

FCC has also amended Rule Section 97.505 to require that physicians only issue a Certificate of Disability when the duration of the applicant's disability will extend for more than 365 days. Therefore, effective October 31, 1991, all physician's Certifications of Disability must be dated.

The Commission also denied three Petitions for Reconsideration of its original Report and Order dated December 13, 1990. The petitioners sought replacement of the term severe handicap with a specific list of disabilities that would qualify for the Morse exemption.

- ARRL Bulletin 37, 9/12/91,
and ARRL Bulletin 38, 9/14/91

handling.

- The ARRL Letter, 8/24/91

THE POPULAR Archie's Ham Radio Adventure comic has been reprinted and is again available for distribution. Corporate contributors to the cost of the 100,000-print run include AEA, ARRL, ARRL Foundation, CQ Communications, Ham Radio Outlet, ICOM America, Kantronics, Kenwood U.S.A., MFJ, Standard Radio, and Yaesu USA.

- The ARRL Letter, 8/24/91

Badger State Smoke Signals

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1 year: \$9.75 • 2 years: \$18.00 (save \$1.50) • 3 years: \$26.00 (save \$3.25)

PLEASE PRINT!

Name: _____ Call Sign (if any): _____

Address: _____ City: _____ State: _____ ZIP: _____

☐ 1 year ☐ 2 years ☐ 3 years

☐ New

☐ Renewal

Send this form, with your check or money order, to Jim Decker, WB9UQT, Treasurer, P.O. Box 337, Baraboo, WI 53913. **Please do not send cash!**

Special Event Station W9ZL at EAA 1991

By Don Baker, NB9J

621 West 7th Street, Kaukauna, WI 54130

The Experimental Aircraft Association's annual Convention and Fly-In, held at Wittman Field at Oshkosh, is the world's largest get-together of aircraft enthusiasts and aircraft. Again this year, as for the past several years, the Fox Cities Amateur Radio Club, operated Special Event Station W9ZL during part of the event. This year, the station operated from Friday afternoon, July 26, until Monday evening, July 29. The special event station operation was coordinated by Wayne Pennings, WD9FLJ.

The station was operated from a school ground about four blocks from the airport for two reasons: (1) When on the grounds, the antenna could not be high enough to be effective and, (2) The W9ZL signal found its way into the EAA's computers and, on 20 meters, W9ZL's signal also got into the public address system.

The station was operated in a 20 x 20 foot tent on the school grounds. The location, away from the airport, provided adequate room to erect all the antennas needed, including dipoles and multi-band verticals. (The Mor-Gain dipole gave us the best signal reports of all the antennas we used.)

To provide security for the equipment, some of the operators camped overnight.

We worked about forty states, some foreign countries, and quite a few Canadian stations. Many of the operators we QSOed had attended the EAA Convention in the past, and they asked us about what kinds of aircraft and how many aircraft were there. Some of our contacts were with private and commercial pilots.

Some of the pilots from the EAA stopped in at the station to ask about sending messages to some of their fellow pilots who, for one reason or another, couldn't get to the convention this year.

Of great interest to the pilots we contacted were the Stealth fighter and some of the more rare military aircraft on display. We had all the information at each station, so that we could answer most of the questions asked by pilots.

On Sunday, July 28, the War Birds put on the air show. They paid special tribute to the men and women who served in the military in Desert Storm. The War Birds are a connection of military aircraft from World War II, and includes fighters, bombers, and transport aircraft. It is a sight to behold!

In addition to the War Birds, there were experimental aircraft, home-built aircraft, racing aircraft, and stunt and racing aircraft. The sight is one that has to be personally experienced to comprehend.

About 13,000 aircraft were at the convention and, as usual, more arrived than could be accommodated at Wittman Field. The overflow traffic was sent to airports at Fond du Lac and Appleton, with some people having to drive sixty miles to Wittman Field from their motels.

To give our readers an idea of the size - and the logistics - required to support a convention of this size, here are some statistics:

- Thirty food stands served 141,874 sandwiches, 55,350 hamburgers, 389,816 beverages (all non-alcoholic); 8,728 breakfasts; 52,354 pieces of chicken; 139,152 desserts; and 49,822 orders of french fries.
- There were 731 Porta-Potties.
- Toilet paper use was 13,165,000 pieces.
- 5,000 volunteers provided 2,000 man-hours of service.
- 352 temporary telephones were installed, the world's largest temporary service.
- 13,000 aircraft visited.
- There were 2,000 show planes.
- 63,216 air operations were recorded by the FAA tower.
- 40,000 people camped in the EAA camp grounds, which is licensed for 8,500 units.
- 6,800 diapers were donated by Kimberly-Clark.
- More than 800,000 people visited the EAA grounds in 1991.



This photo of the EAA Special Event Station crew was taken at a cookout at the station site. In front, left to right, are: Bruce Carlson, N9MDE and family; Myron Jackson, WB9BBI; Wayne Pennings, WD9FLJ; Aaron J. Baker (grandson of Don Baker, NB9J); and Eric Kirschner, KB9DYG. In the back row are Larry Siebers, KD9IA; Martha Schmeichel, N9JAD; Don Baker, NB9J; Rick Kosiorek, WX9C; and Jeff Schmeichel, KB9BYP. The outhouse in the background was built by Myron Jackson, WB9BBI.



Goeff, VK3DNJ, from Australia, stopped in at W9ZL and did some operating, causing a pileup with his call. At right is Wayne Pennings, WD9FLJ, Chairperson of the station and the force that kept the station running.

- Photos by Dan Vanevenhoven/N9LVS

The EAA special event committee is already working with EAA President Tom Poberezny and EAA Convention Chairman Peter Chapman on planning the special event station for 1992, when W9ZL will operate from Pioneer Airport, on the EAA grounds. Watch the June 1992 issue of *Badger State Smoke Signals* for the dates, times, and frequencies of operation.

If you visit the EAA in 1992, stop in and visit us. If you work special event station W9ZL, and send your QSL with an SASE, we will send you a very nice certificate that can be framed and hung on the wall. Please send an 8" by 10" envelope so that we won't have to fold your certificate.

We hope to see you at EAA '92, or hear you on the bands! □

The new film *Ham Radio in Space* will be downlinked October 20 between 2 and 3 p.m. Eastern Time on the Westar 5 satellite, channel 4, transponder 4H.

- ARRL Special Bulletin 26, 9/12/91

Editorial

By Mark Thompson, WB9QZB
P. O. Box 357
Mount Prospect, Illinois 60056

Illegal Use of Transmitters

Recently, the RAIN Dial-Up Service aired an interview with a representative from Radio Shack to discuss the new Radio Shack 2-meter HT. It was a very interesting interview and, like the 10 meter SSB mobile introduced a few years ago, it should attract more people to the service. In fact, Radio Shack should be congratulated, because of its support of ham radio, and in particular for making books and materials available to the general public who might be interested in becoming a ham.

There is a potential problem, though, and it doesn't start or end with Radio Shack. That is the illegal use of transmitters by those who aren't licensed to use those transmitters. Easy availability of transmitters for ham bands and the marine band in a Radio Shack store or ham dealer can contribute to the illegal operation already occurring.

For example, there is a great deal of illegal activity below and above the CB band, much of it caused by modified ham radio transmitters or modified CBs. Some of this activity frequently spills over into the low end of 10 meters. The Uniden 2510 is easily modified to cover from 26-30 MHz by cutting a couple traces on the circuit board and adding a jumper. I own a Yaesu FT-747GX, and a simple cut of a wire provides transmit capability from 1.5-30 MHz. In fact, I just read a packet bulletin about illegal CB activity in the 20 meter band.

There have also been numerous violations recently by hams and non-hams using modified 2-meter and dual-band HTs in the public service band to make unauthorized police transmissions. In addition, aircraft band HTs and VHF marine radios are readily available from ham dealers or Radio Shack.

My first reaction is to require the manufacturers to design their equipment so that it is more difficult to modify their transmitters. There is certainly more the manufacturers could do, rather than just allowing someone to snip a wire or a trace on a circuit board. Unfortunately, this approach has the potential to limit the commercial use of the equipment in services other than ham radio which might limit the market for ham rigs. This would require the manufacturers to design rigs more specifically for a particular radio service. If ham rigs are designed properly, the general coverage and scan capabilities we've come to enjoy on modern transceivers should remain.

And then there are the ham radio dealers. There are a number of dealers who will sell any transmitter to anyone. In many cases, the dealer knows or suspects that the individual is not authorized to use the radio in the service it's designed for, but sells it to them anyway. Now, I know it's not currently illegal to sell a transmitter to someone who is not

Rebuilding Nickel-Cadmium Battery Packs

By John W. Frank, WB9TQG
P.O. Box 5113
Madison, WI 53705

If there were an organization called "Cheap-skates Anonymous," I'd probably be a charter member. If something is broken, I'd rather fix it than buy a new one. If something is worn out, I'd rather rebuild it than replace it. Sometimes this is a matter of thrift. Sometimes new replacements may not be available for old devices.

A number of years ago, a camera store employee told me it would cost \$50.00 to have a repair depot replace the rechargeable batteries in my electronic flash. After opening up the case of the flash, I found four fuzzy cells in the battery pack. Replacing those four cells cost \$2.72 (hamfest price) for a saving of \$47.28.

Sometimes manufacturers put ominous warnings on their products: "WARNING: REPLACE ONLY WITH BRAND 'T' BATTERY PACK TYPE 3." The problem is that sometimes the device that needs batteries outlives the supply of batteries. Such was the case with a calculator that seemed destined for my junkbox for lack of a battery pack. Before tossing the calculator in the junkbox, I decided to see what was inside a "Brand T Type 3 battery". Surprise: it held three AA cells. I had to trim some stubborn plastic out of the way to get the dead cells out of the holder they were in. Then, I had to use glue to hold the new cells in the mutilated battery holder.... but, it worked.

Not long ago, the battery pack in my favorite scanner wouldn't hold a charge. I was confident I could repair it for much less cost than a new battery pack would cost. Spending \$18.76 on eight new cells was still cheaper than buying a new battery pack. I already had the solder and insulating tape I needed to finish the project. An economist might point out that I didn't take my time into consideration. True, but this is a hobby!

Ten years ago, my wife gave me a cordless soldering iron for my birthday. It was long

source of cells of the proper size and capacity. Now, it works as good as new.

In spite of these four success stories, there are still a number of precautions I follow when working with Nickel-Cadmium batteries.

1. Do not short out a Nickel-Cadmium cell! These cells have a relatively low internal resistance, and will try to push all the current they can through a short circuit. A friend once bought cells at a hamfest and put them in his pants pocket, along with his car keys and a handful of change. He nearly set his pants on fire when the cells shorted out through the car keys.

2. Rechargeable batteries meant to be drop-in replacements for AAA and AA sizes are a fraction of an inch longer than the equivalent cells with solder tabs. It is generally not a good idea to solder wires to a cell that does not have solder tabs for terminals.

3. If you need to solder wire to a cell, use the minimum amount of heat needed to get a good connection.

4. Do not put Nickel-Cadmium cells in a fire. Please dispose of old cells in an environmentally safe manner.

5. Make sure the new cells have the same capacity in milliampere-hours (MAH) as the old cells you are replacing. For example, if the old cells were rated 600 MAH, and the new cells are rated 400 MAH, the new cells won't last as long between rechargings.

6. Make sure that all cells are installed with the correct polarity.

For more information about Nickel-Cadmium batteries, I would recommend the *Nickel-Cadmium Battery Application Engineering Handbook*, published by the General Electric Company Battery Business Department. □

licensed, but there should be some degree of responsibility by the dealers.

But there is another alternative. A legal one. The FCC could require that, when a transmitter is sold, proof of proper FCC license to use the equipment would need to be shown in order to purchase the transmitter. Yes, this would inconvenience some. For example, those interested in ham radio would have to buy a receiver instead of a transceiver to monitor the ham bands if they wanted gear from a dealer. Although, rigs home-brewed or purchased from an individual would be exempt.

There are several ways to classify a dealer. A wife would have to buy a gift certificate, rather than the actual rig to give as a gift; besides, how many spouses know the exact model number or brand anyway? There has already been a precedent set here, when the FCC banned the sale of amplifiers capable of operating in a certain frequency range. Restricting sales to properly licensed operators

would help stop the problem of illegal operation before it begins.

Of course, certain devices would be automatically exempt, such as cellular telephones, cordless telephones, and CBs.

So, what is required to make these changes occur? First, it is time the ham radio manufacturers become responsible and begin to design their rigs to make unauthorized mods either difficult or non-existent. They could set up an advisory council to discuss standards regarding this.

The legal approach would require a rule-making petition that would have to be filed with the FCC and works its way through the process. This type of legislation would have to be broad in scope, but specific in nature.

If you believe these kinds of safeguards are needed to reduce the potential for abuse in our ham

Wisconsin Nets Association Picnic • September 7, 1991

Ochsner Park • Baraboo, WI



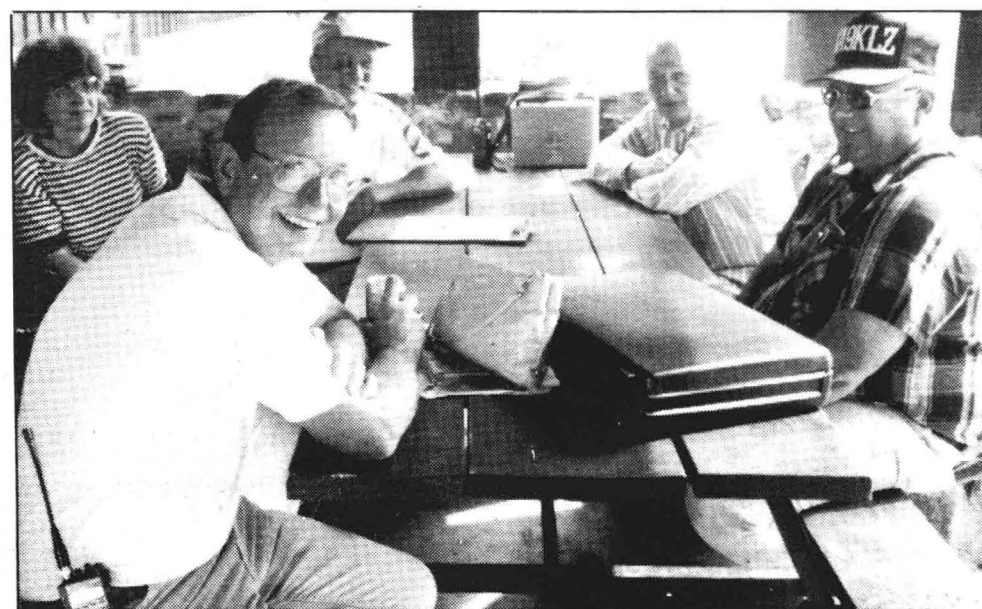
Here are the net managers, delegates, and other officials who gathered for a group photo at the WNA Picnic. **FRONT ROW**, left to right are Wayne Schanke, KE9VU, New Holstein, NCS for the Wisconsin Sideband Net; Larry Guthu, WB9ICH, New London, Manager of the Wisconsin Intrastate Net/Early; Gene Santoski, K9UTO, Wisconsin Rapids, Manager of the Wisconsin Sideband Net; Roy Pedersen, K9FHI, Juneau, delegate from the WSBN; and Keith Shilhavy, KY9P, West Bend, WNA treasurer. **BACK ROW**: Ed Rice, W9NGP, Oconomowoc, Manager of the Wisconsin Intrastate Net/Late; Hale Blakely, W9CBE, McFarland, Net Control for WINE and WIN/L; Les Peterson, W9YCV, Greenfield; Don Stenz, K9KSA, Brookfield, Section Traffic Manager and Chairman of

the WNA; Richard Regent, K9GDF, Milwaukee, ARRL Wisconsin Section Manager; Jim Caldwell, WB9YPY, Rhinelander, NCS and delegate for the Badger Weather Net; Art Evans, KA9KLZ, Cuba City, Net Manager of the Badger Emergency Net; Sherm Carr, W9NGT, Hartford, Assistant Section Emergency Coordinator; and Paul De Witte, N9FVN, Shullsburg, Net Manager of the Wisconsin Novice Net. In the election of officers, two incumbents were re-elected: Don Stenz, K9KSA, Chairman, and Keith Shilhavy, KY9P, Treasurer. Bob Towns, N9IAI, declined candidacy for re-election as WNA secretary; Rob Hummel, WA9ZTY, was elected the new secretary.

- Photo by Jim Romelfanger/K9ZZ



A popular activity at the annual WNA Picnic is BINGO! Above are veteran picnic bingo callers Beryl Pedersen, KA9BAC (left), wife of Roy Pedersen, K9FHI, and mother of Gary, KA9BAC, and Marianne Carr (right), wife of Sherm



Carr, W9NGT. In the photo at right, some of the picnic attendees enjoy a pre-meeting chat. At left front is Carl Plotz, WB9JSW, Oshkosh, Bulletin Manager for the Wisconsin Section of the ARRL.

- Photos by Jim Romelfanger/K9ZZ

Madison Mayor Honors Hams

Mayoral Proclamation • City of Madison, Wisconsin



WHEREAS, the City of Madison has more than 500 licensed amateur radio operators who have demonstrated their value in public assistance by providing emergency radio communication; and

WHEREAS, amateur radio operators donate these services free of charge, in the interest of the citizens of the city as well as around the world; and

WHEREAS, amateur radio operators are on alert for any emergency, local or worldwide, and practice their communication skills during the American Radio Relay League, Incorporated's Field Day exercise; and

WHEREAS, this year's amateur radio Field Day will take place on June 22-23, 1991;

NOW, THEREFORE, BE IT RESOLVED, that the Mayor of the City of Madison, Wisconsin, does hereby declare the week of June 17-23, 1991, as:

"AMATEUR RADIO WEEK"

in Madison; in recognition of this important emergency preparedness exercise.



Paul R. Soglin
PAUL R. SOGLIN, MAYOR

Signed this 11th day of June, 1991 at City Hall.

Madison Mayor Paul Soglin recognized and commended Madison's Amateur Radio operators in June with this proclamation. The proclamation was reprinted from *The Feedline*, newsletter of the Four Lakes Amateur Radio Club, edited by Dick Burton, N9BAF. □

ARRL Section Officials Reunion



On Friday, August 23, a mini-reunion of 1960s Wisconsin section officials and appointees took place in Baraboo, when Bernie Tower, AI6Q (second from left in the photo), of Santa Monica, California, and his wife Jacquie, were in town to take in the Circus World Museum. Bernie was Wisconsin's Section Emergency Coordinator in the 1960s, when he held the call sign K9ZPP. Bernie then moved east, where he became W3FSQ, and then on to California, where he received the call sign AI6Q. Bernie's wife Evvie passed away some time ago. At left is BSSS Chairman Ken Ebner, K9EN. Ken was the Section Communications Manager (now called Section Manager) when Bernie was the SEC. Ken was then K9GSC. Third from left is Don Evenson, K9JYX, of Baraboo; Don, in the 1960s, lived in Menomonee Falls, and was Emergency Coordinator for Waukesha County. Finally, at right is your BSSS editor, Jim Romelfanger, K9ZZ. In the 1960s, he was K9PKQ, and was the Emergency Coordinator for Sauk County. Bernie asked us to pass his regards to all of his many friends in Wisconsin. He is currently not very active on the air, but says in a letter that he likely will become active on packet. Since he is in the computer business, that makes perfect sense!

- Photo by Jacquie Tower

Boy Scouts Jamboree on the Air

The 34th annual Scout Jamboree on the Air (JOTA) will be held from 0001 local time October 19 to 2359 local time October 20. Special JOTA Scout stations to contact are:

HB9S	World Boy Scout Bureau	Geneva, Switzerland
LX1JAM		Boy Scouts of Luxembourg
LA1JAM		Boy Scouts of Norway
K2BSA	Boy Scouts of America National Office	Irving, TX
XE1ASM		Boy Scouts of Mexico
DU1BSP		Boy Scouts of Philippines
JA1YSS		Boy Scouts of Japan
ZS6JAM		Mafeking Boy Scouts
GB2GP		Gilwell Park, England
VE3SHQ	Boy Scouts of Canada	Ottawa, Ont., Canada

JOTA frequencies are:

80 Meters: CW - 3590 KHz; Phone - 3740 KHz (U.S. not allowed) and 3940 KHz.

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Dad, This is Your Son Calling

Keith, KB9GSA, son of K9WTF, passed his Technician license shortly after he received his Novice license in the mail. With great vigor, Keith continued studying for the General test.

Meanwhile, Keith's dad, located in West Bend, Wisconsin, arranged a schedule with his son in Duluth, Minnesota. Of course, keeping the schedule depended on whether Keith would pass the General test before then.

K9WTF waited for the scheduled moment, listened, gave a call, "KB9GSA, this is K9WTF," then waited and listened some more. It seemed like a very long pause. Suddenly, and with a very happy voice, KB9GSA, interim KG, called his dad back. They were on the General portion of the 40-meter SSB band. Keith didn't need to say it, but he did, "Dad, I passed the General!" Dad knew it, and loved the surprise QSO with his son.

Now, they can frequently keep in touch on the air. Keith will be getting his General call sign soon - if the mail can ever catch up with his test-taking abilities.

- Richard Regent, K9GDF
5003 South 26th Street, Milwaukee, WI 53221

League, Soviets Discuss Emergency Communications

American Radio Relay League Field Services Manager Rick Palm, K1CE, has returned from a week-long visit with amateurs in the Russian Republic of the USSR, where he discussed the role of Amateur Radio in emergency communications. Palm, at the invitation of Andy Fyodorov, RW3AH, on August 3 addressed some 300 amateurs at "Hamvention Leningrad '91," a gathering of hams now in its third year.

Palm later conducted tutorials on amateurs' role in emergency communications in the U.S., for both amateurs and Leningrad city officials.

Palm noted how far the concept of Amateur Radio emergency communications had come in the Russian Republic in just a few years. Glasnost, and the active role of amateurs in the Chernobyl nuclear accident and the December, 1988 earthquake in Armenia, changed that.

On a later visit to Moscow, Palm met with Red Cross and Red Crescent officials (with whom the newly-formed Russian Amateur Radio Service is associated). He noted the various long-standing agreements between the League and American aid groups, as well as the ARRL's expanding role in helping other countries with emergency communications, citing Hurricane Hugo in September, 1989, as the most recent example.

Palm and RARES coordinator Fyodorov concluded the visit with an informal agreement

between ARRL Field Services and RARES, to pursue further discussions of the following:

- Creation of an international consulting committee;
- Organization of packet bulletin board systems and regular exchange by means of satellite packet channels of information related to emergency communications and NTS development in both countries;
- Planning of joint conferences, meetings, and hamfests on mutually interesting questions;
- Organization of regular joint field simulated emergency tests;
- Joint participation in disaster relief operations;
- Personnel exchange aimed at sharing of practical experience of participation in relief operations;
- Practical realization and support of joint projects related to development of modern amateur communication modes and their implementation in emergency situations.

(BSSS editor's note: The attempted military coup in Moscow occurred shortly after the conclusion of Palm's trip.)

- *The ARRL Letter*,
August 24, 1991

Soviet Radio Amateurs Help Resistance to Coup Attempt

Continued from front page

vision networks carried video of operations from R3A and Stepanenko was easily recognizable in the film footage.

One ham who received the fax was Bill Goodman, K3ANS, of Easton, Pa., who had hosted Stepanenko in early July. Goodman got in touch with *The Morning Call* in Allentown, Pa. As always, the *Call's* editors were looking for a local angle to an international story.

Next to a page one story under the banner "Gorbachev resigns as party chief," the *Call* ran a sidebar on Goodman and his friendship with Stepanenko. *Call* reporter Ron Devlin telephoned Moscow on August 24 and interviewed Stepanenko, who told him that at times R3A was the only source of communications for the resistance.

According to the *Call*, Stepanenko was assisted in setting up R3A by Yuri Brajenko, who is president of a company called Moscow Boston International Ltd. (and for whom Stepanenko works; Brajenko accompanied Stepanenko on some of his U.S. tour). Brajenko also was in Moscow at the time of the attempted coup.

And, on August 22, Dick Ehrhorn, W4ETO, president of Ehrhorn Technical Operations (and who had visited Russia earlier this summer) received the following fax from Gene, RA3AA, with whom Ehrhorn stayed in June:

"Dear Dick:

"I send you this fax from Russian prime minister office. We Win! Mr. Gorbachev back in Moscow. Our special emergency stn R3A still operates from Russian White House.

"Equipment: IC-726 and Alpha 76."

"73, Gene, RA3AA"

- *The ARRL Letter*,
September 5, 1991

BSSS Club Deal

Badger State Smoke Signals can serve your club's members as your club's newspaper. Your club's minutes will be published every month, along with any other news, photos, and other material which your club would like to have appear in BSSS. And, your members can save money on BSSS subscriptions at the same time. Here's how it works.

1991 BSSS Club Rates

Subscribing members of club only:

10 or more subscriptions	\$7.00 per year
50 or more subscriptions	\$6.40 per year

All members of club (billed quarterly):

Less than 50 members	\$6.40 per year
50 or more members	\$5.80 per year

This plan must include all members of club to qualify for these rates. Under this plan, up to 15% additional complimentary mailings may be included at no added cost. These are useful for mailing free copies to political and community leaders, to prospective members, etc.

If you would like more information, please contact our Circulation Department: Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. □

H.R. 73 Update

Although Congress has been on its annual August break, eight more U.S. representatives have joined H.R. 73 as co-sponsors since we last listed them, bringing the total to 135. The new cosponsors of the Amateur Radio Spectrum Act of 1991 are: William Jefferson (D-LA); Gene Taylor (D-MS); Jolene Unsoeld (D-WA); Thomas Andrews (D-ME); Thomas Bliley (R-VA); Tom Petri (R-WI); Porter Goss (R-FL); and Mike Espy (D-MS).

- *The ARRL Letter*, 9/5/91

BSSS Editor's Note: Tom Petri is the third Wisconsin representative, of a total of nine, to sign as a co-sponsor of H.R. 73. The others are Steve Gunderson and Gerald Kleczka. The addresses of all nine, plus our two senators, were published on page 13 of our August issue.

An almost identical bill (S. 1372) was introduced in the U.S. Senate on June 25 by Senator Al Gore (D-TN) for himself, and for Senators Carl Levin (D-MI) and Joseph Lieberman (D-CT).

Please write to your representative and both Wisconsin Senators (Herb Kohl and Bob Kasten) and tell them you support the bills. If your representative has already signed as a co-sponsor, a thank-you letter would certainly be in order. Please send copies of ALL correspondence, sent and received, to Perry Williams, WIUED, at ARRL Headquarters, 225 Main St., Newington, CT 06111. □



OUR WANT ADS GET RESULTS

RIGS WANTED: I'm looking for the following equipment. (1) Yaesu FT-627RA six-meter FM mobile transceiver. This rig was similar to the FT-227RA FM 2-meter memorizer, but was for six meters. (2) Yaesu FT-127RA 220 MHz FM mobile transceiver. Again, this was similar to the FT-227RA memorizer, but was for 220 MHz FM. Mark Thompson, WB9QZB, P.O. Box 357, Mt. Prospect, IL 60056. (312) 275-6867. Reply via packet to WB9QZB@KB9DIP.IL.USA.NA. □

New Products

ICOM IC-RP1520 VHF REPEATER

The IC-RP1520 VHF repeater is Icom's latest in repeaters for the Amateur Radio industry. Designed to meet today's operating demands on the 2-meter band, the IC-RP1520 is ideal for individual or club use.

Remote Control: No need to travel all the way to the repeater site to make simple changes. User programmable functions can be remotely controlled DTMF codes. In addition, the codes include a 4-digit password to prevent undesired remote control.

Programmable Identification: Program in your own call sign. The speed can vary from 4 to 30 words per minute.

Low Intermod: The transmitter and receiver are built into RF shielded boxes, ensuring low IMD.

Advanced Cooling System: A compact, yet highly efficient, cooling system with internal fan ensures that power amplifier temperatures remain steady in the repeater at all times.

Continuous Operation: Operate continuously with the IC-RP1520 by utilizing the backup battery terminals. Even if AC power is interrupted, the IC-RP1520 will automatically continue operating using an external battery.

The IC-RP1520 outshines all the rest when it comes to superior quality and technology. Suggested retail price on the IC-RP1520 2-meter repeater is \$2,229.00. For more information on the IC-RP1520, please contact your local authorized Icom dealer.

- Icom news release

ICOM RP4020 UHF REPEATER

The IC-RP4020 UHF repeater meets the demands of operators everywhere for an advanced commercial-grade quality repeater on the 440 MHz band. Now, the IC-4020 comes in two versions, 25 watts or 50 watts.

Remote Control With DTMF Codes: User-programmable functions can be remotely controlled using DTMF codes. The codes include a 4-digit password to prevent undesired remote control. Also, the CTCSS frequency can be remotely changed. No need to go all the way to the repeater site to make simple changes!

Programmable Call Sign Identification: The CW call sign identification is user-programmable in speeds from 4-30 words per minute.

Excellent Low Intermod: The transmitter and receiver are built into RF-shielded boxes, ensuring low IMD.

Advanced Cooling System: A compact, yet highly efficient, system with internal fan ensures that power amplifier temperatures remain steady in the repeater at all times.

Back-up Battery Terminals: Continuous operation is ensured at all times with the IC-RP4020 back-up battery terminals. Even if AC power is interrupted, the IC-RP4020 will automatically go on operating using an external battery.

With all these features, it's obvious that the IC-

RP4020 is the UHF superstar of repeaters.

The 25-watt version of the IC-RP4020 is list priced at \$2299.00, and the 50-watt version is list priced at \$2499.00.

For more information on the IC-RP4020 UHF repeater, please contact your local authorized Icom dealer.

- Icom news release

ICOM IC-2SRA (144 MHz) AND IC-4SRA (440 MHz) HANDHELD TRANSCEIVERS

Icom proudly announces the IC-2SRA 144 MHz and IC-4SRA 440 MHz handheld transceivers. With the introduction of these new transceivers, Icom now expands your operating pleasure by installing a wideband receiver directly into the unit.

Receive Everything from 25-905 MHz: VHF and UHF frequencies, plus dual frequency capability, are now within your reach.

Convenient and Compact: Weighing only 13.6 ounces and measuring 2.1" W x 5.3" H x 1.4" D, the IC-2SRA and IC-4SRA handhelds are the multi-purpose handhelds of today!

Five Watts Output Power: By connecting an external 13.5 volt supply, the IC-2SRA and IC-4SRA provide a full five watts of output power!

Separate Controls: Independent squelch and volume controls allow you to change settings in each band separately.

Advanced Frequency Monitoring System: Icom's frequency monitoring system allows you to

Please turn to page 17

The

Kettle Moraine Radio Amateurs

13th Annual Fall

1991 Computer and Ham Radio Swapfest

Sunday, October 13th, 1991

From 8:00 AM until it's over at the
Waukesha County Exposition Center
Highways J and FT in
Waukesha, Wisconsin
TALK-IN ON 147.39+

FUN! EXCITEMENT!
FOOD AND REFRESHMENTS!
AMATEUR EXAMINATIONS!
GREAT DEALS! FREE PARKING!

EXAMINATIONS COURTESY OUR FRIENDS FROM THE
BADGER EXAMINERS!

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↑
Madison Milwaukee

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WAUKESHA COUNTY AIRPORT
HWY T HWY J
EXPO GROUNDS
NORTHVIEW RD.
DELAFIELD ST.

The KMRA 13th Annual Computer and Ham Radio Swapfest Advanced Registration Form

Please send me tickets for the following:

- ☐ General Admission - \$4.00 each (\$5.00 at the door)
☐ 4 foot Table Reservation - \$5.00 each (\$6.00 at the door as available)
☐ Electrical Outlet - \$5.00 as available
☐ Amateur Radio Exam Information provided at no charge

**PLEASE
INCLUDE
AN S.A.S.E. !**

Name _____
Street _____
City, State ZIP _____

All orders *must* be accompanied by a SASE and mailed to:

KMRA Swapfest
PO Box 276
Waukesha, WI 53187-0276

VENDOR SET-UP AT 6:00 AM

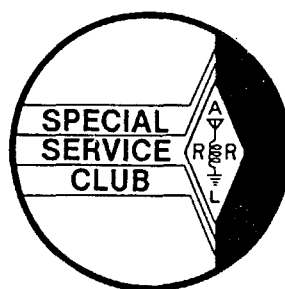
Responses to all correspondence and ticket requests received on or after October 5 will be held at the door!



Riverland Amateur Radio Club

Karl Simonson, KB9EQI, Secretary

P.O. Box 2251 • La Crosse, WI 54602-2251



Meeting Minutes September 3, 1991

The September 3rd meeting of the Riverland Amateur Radio Club was called to order at 7:45 p.m. by President Walt Altus, AA9AW.

The Secretary's report was not given due to Karl, KB9EQI, not being able to attend, and a copy of the minutes was not available. The Treasurer's report was given by Arby Boomer, WF9T, and was approved as read.

There were no committee reports to be heard at this time.

Old Business

Feroz Ghouse, WU9N, gave a report on the trailer donations.

New Business

Arby, WF9T, suggested that a commemorative plaque be made in recognition of Al Reinholz's bequest. Van Elston, WA9FIO, made and Dean Summers, KQ0C, seconded the motion to have a plaque made. The motion was approved.

Feroz, WU9N, gave a report on the programs for the remaining meetings of this year. In October an open house is planned. Bring your family.

November will be the planetarium visit at UW-La Crosse. Family is welcome to attend. Please note that the club meeting will be held at the planetarium in November.

A gift exchange is planned for December.

Names will be drawn in November. \$5.00 to \$7.50 is the suggested value of the gifts to be exchanged.

Amateur Radio exams will be held on November 11, 1991 at 7:00 p.m. The exam session will be held in the Onalaska Community Center, 515 Quincy Street, Onalaska, WI. Persons interested in taking an exam are asked to contact Rick Williams, KV9U, or Dick Low, K0JYB, so that the appropriate materials are available.

The club dinner is planned for January 12, 1992. More details will be announced on the Sunday night nets (9:00 p.m. on the 146.97 repeater).

Walt, AA9AW, inquired about the fall hamfest. Dick, K0JYB, reported that there are no commercial exhibitors planning to attend. Feroz, WU9N, suggested that planning be started earlier for next year. Art Osborn, W0JDC, suggested that we discontinue having the hamfests.

Feroz, WU9N, moved that a committee be formed to start planning for a fall hamfest next year. The motion was not seconded, and was dismissed.

Dick, K0JYB, suggested that the club purchase some pens with the Riverland Amateur Radio Club logo and information to be used for advertising purposes. The pens could be distributed at special events such as the annual club dinner, to guests at the club meetings, and among the club membership. The cost would be approximately \$1.50 each. Dick will bring samples to the next meeting of various products.

Feroz, WU9N, moved that the club send a card to Charlie Burch, KA9UUK, who is currently hospitalized. Van, WA9FIO, seconded the motion. The motion carried.

Rick, KV9U, informed the club that a new

secretary candidate will need to be found for next year. Karl, KB9EQI, the current secretary, is having difficulty with his current employer regarding absence to attend the meetings. Unless Karl's employment situation changes, he will not be able to continue in an official capacity.

Van, WA9FIO, said that a list of items to be done to the club trailer should be made to facilitate member participation in trailer improvements. The list could show various areas that need attention. Some of the items could be an ongoing preventive maintenance project. Some things that could be listed are paint, weatherproofing, caulk, running lamps, grounding and ground rods, etcetera.

Arby, WF9T, gave a report regarding the replacement or repair of the tower on the portable tower trailer. Discussion was heard. Scott Hurd, KB9GCV, offered a crank up tower for the replacement. The club gratefully accepted the offer. Arrangements will be made to pick up the tower.

Feroz, WU9N, moved and Van, WA9FIO, seconded a motion to adjourn. □

Meeting Attendance

Walt Altus	AA9AW
Rick Williams	KV9U
Ernie Gershon	K9ZVU
Feroz Ghouse	WU9N
Brian McCarty	N9IWP
Dallas Miller	K9LEC
Judy Williams	N9LGV
Ken Eggen	WA0RBU
Van Elston	WA9FIO
Nook Bentzen	K9EGO
Hugh Barker	KA0EJZ
Art Osborn	W0JDC
Arby Boomer	WF9T
Bob Wilson	N9LZK
Gary Webb	NI9V
Dean Summers	KQ0C
George Kroner	KE9PL
Scott Hurd	KB9GCV
Rich Koebernick	KA9ZZK
Scott Neader	KA9FOX
Dick Low	K0JYB
Joe Mazera	WA9SOQ

(Please see addendum on page 16)

Eau Claire Amateur Radio Club

Carl Searing, W9NW, Secretary

1129 McKinley Road • Eau Claire, WI 54703-2219

Minutes: Meeting of 10 September 1991

The club met at the new Wisconsin Public Broadcasting facility on Clairemont Avenue in Eau Claire. About 45 members and guests attended. President Bill Jablonske, W9NNS, presided. Secretary's minutes of the last meeting were read and approved. There was no treasurer's report.

W9NNS reported on the ongoing matter of next year's Hamfest site selection and the picking of a

date. There seem to be conflicts. It is hoped to have the matter resolved soon.

Andy Anderson, KA9WHN, talked about the club trailer, which is at the District One Tech. School for painting. When this is completed, work parties will be needed for interior finishing touches, securing of the club generator, antenna mounts and patch panels, etc.

The overall status of the club repeaters was discussed at some length. It was decided to form a technical committee, which would evaluate both

repeaters and their accessories and make recommendations in two months or so. Committee members include KB9R, WJ9S, WU9R, and possibly W9-BAR.

Ken Dicks, KE9CS, gave the club a tour of the broadcasting facility, and gave a short talk on the facility's function in the Wisconsin Public Broadcasting chain of stations. He also had test equipment available (in particular, frequency and power meters) so that members could check their 2-meter HTs.

Lunch committee for the next meeting: KC9NN and N9JMB.

Respectfully submitted:
W9NW, Secretary

Badger State Smoke Signals welcomes articles about and photos of radio amateurs in action in any facet of Amateur Radio. Please send your stories to the editor; see page 2 for the address.

OFFICIAL PUBLICATION OF CENTRAL WISCONSIN RADIO AMATEURS, LTD.

At University of Wisconsin, Stevens Point



WB9QFW 2-Meter Repeater 146.07-67 and Club Station

P. O. Box 847 • Plover, WI 54467

Minutes of September 11 Meeting

The meeting was called to order at 7:30 by our future former president, Mike Pagel, KA9LAQ. There were 25 people present, and the roll was as follows:

Ray Dix	KF9BG
Mike Pagel	KA9LAQ
Russ Fritz	KB9FVV
Mike Urban	KB9GXV
Mary Eiden	KA9FAS
Gene Kroll	KE9MA
Debra Kroll	N9EIL
Mike Eiden	WD9JID
Mike Smith	N9IAI
Dave Olson	N9JQU
Joe Larson	N9JW
Jim Benak	KA9ACE
Jeremy Krueger	KB9AWP
Adriana Dix	KB9DUR/KT
Sara E. Eiesensel	
Frank Guth	W9BCC
Art Wysocki	N9BCA
John Feltz	WA9LWJ
Robert Baird	W9NN
Charles Miller	WB9UMU
Jim Tuszka	N9MEB
Wendy D.	KA9WEQ
Joe Mangal	KA9TTU
John Kalina	KA9DJA
Frank Podach	N9JQR

Our future secretary/treasurer, Ray, KF9BG, then gave his state-of-the-treasury report, and passed along various pieces of correspondence received since our last meeting.

The business meeting was rather short and to the point as, there being no formal meeting in August, most of the agenda items were topics of concern for future meetings.

Joe, N9JW, informed the club that Novice/Tech classes would start Oct. 1, 1991, and run for 10 weeks on Tuesday nights. This will be a no-code class, however, arrangements are being made to help those who have expressed an interest in learning the code. The classes will be in room D-214 on the U.W.S.P. Science Building, running from 7:30 to 9:30.

The items brought up for action at future meetings, beginning with October, are as follows:

1. The purchase of a TNC for the WB9QFW club station. The university has given us "guardianship" of an older model IBM computer, which will be stored in the club station. It would be a shame to just let it sit and gather dust.

2. The possibility of having an "open house" at the club station on a regular (monthly?) basis. This is to both encourage use of the station, as well as to advertise its existence to the university and the community.

3. New Field Day sites. W9NN, Bob, reported that due to circumstances at the old site, it may not be available next year and relocation would be necessary. He will keep us up to date on any de-

velopments, but said the situation does not look promising at this time.

We were given a brief report on the repair of the University's radio tracking antenna, which had been vandalized over the previous winter.

Jim Tuszka, N9MEB, was introduced to the club and welcomed aboard. He is the radio engineer on campus, having served a stint with radio stations WSPT/XYQ here in Point.

Then, the big moment: the election of officers. Prior to opening nominations, Adriana, KB9DUR, passed along a message of "encouragement" from her mother, Joanna, saying that Ray, KF9BG, was not to be nominated for any office.... or else. The club did not question the wisdom of this request, and Ray was not nominated - a great loss for all of us. After much soul searching, the club elected its finest to the following offices:

PRESIDENT: Art Wysocki, N9BCA (who really was hoping for V.P.),

VICE-PRESIDENT: Mike Smith, N9IAI (who was hoping for no office),

SECRETARY/TREASURER: Jim Benak, KA9ACE (elected to the only office not held),

ACTIVITY MANAGER: Mary Eiden, KA9FAS (a position she has wonderfully filled in the past),

PUBLICITY: John Feltz, WA9LWJ (actually "appointed" when it was pointed out that we did not have an elected publicity position),

EQUIPMENT MANAGER (a shared position): Jim Tuszka, N9MEB (who volunteered himself for nomination), and Ron Howe, NJ9H (who was not there to decline).

With that, Art, N9BCA, announced that the program for the October meeting will be Eugene Jacobs of the Linwood Springs Research Center, who will be speaking on hawks and owls and the research being done on them. It should be an interesting program for all - hams and non-hams alike.

Our next meeting is October 9, 1991, in A-107, University Science Building, at 7:30. Talkin will be on 146.985.

Respectfully submitted:

Jim Benak, KA9ACE, Secretary/Treasurer

RFI Oddities

THE BREATHALYZER TEST: One day Mike, N9GHZ of Abbotsford, had a amateur radio exhibit showing 2-meter capabilities with his IC-28H running 45 watts. About 20 feet away at another exhibit was the Colby-Abbotsford Police Department intoxilyzer machine. After a while, an officer from the police exhibit came over to ask Mike about his equipment. The police couldn't get their breathalyzer demonstration tests working right.

Suspecting RFI, Mike decreased power to 5 watts - the police equipment then worked fine. The police officer said he had the same problem when they used their own portable radios nearby; since the intoxilyzer was microprocessor-based, it was suscep-

tible to RFI. Mike made a check with a handheld two feet away from the machine. Sure enough, it caused the machine to respond "Invalid Test, Inhibited - RFI."

So, Mike suggests, if you want to beat the rap, just take your 2-meter HT along with you into the police station and transmit a little RF signal while taking the breath test. It's sure to work every time.

MIXING RF SURPRISES IF: Mike recalls another run-in with the law. While QSOing KA9AAD on 146.55 MHz, again using his 45-watt IC-28H, he got a phone call from the local police chief. "You're coming over one of my scanner radios here in my office," he noted, "You're coming through on every channel, and I can't lock out your signal." After swallowing hard, Mike says, "I began to ask a few questions and found out he didn't even have 146.55 MHz as a receive frequency! His older model Radio Shack Realistic PRO-78 was crystal controlled."

While the chief stayed on the phone, Mike

quickly QSYed to another frequency and made a short test. The chief said, "It seems OK now." The RFI had vanished.

After some brainstorming, Mike considered a cable TV signal leak, perhaps the channel G visual carrier of 157.25 MHz. Then the facts came together. The difference between 157.25 MHz (the visual carrier of channel G) and 146.55 MHz (Mike's transmitter frequency) is 10.7 MHz - the Intermediate Frequency of the chief's scanner receiver.

When N9GHZ made a visit to the police station, there indeed was a portable television connected to local cable TV service right next to the old PRO-78 scanner. For the time being Mike, refrains from using 146.55 MHz, just to keep everyone happy.

*- Richard Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221*

From the Editor

No-Code Technicians

Early indications, after five or so months of looking at new licensee statistics, are clear: the new No-Code Technician Class license is going over in a big way! In the past three months, more than 90% of new hams in Wisconsin are Technicians. There is no way to determine how many of those are of the no-code variety, but it is probably safe to assume that most of them are codeless.

I said a few months ago here in these hallowed pages that I do not agree with those who believe that the no-code license is the "beginning of the end of ham radio as we have known it." The no-code license almost certainly *will* bring some changes, but those changes are not necessarily going to be "bad" changes. And, remember that change is necessary. If changes do not occur - in a hobby, in a country, in politics, in anything - the inevitable result is stagnation, atrophy and, ultimately, death. Amateur Radio, like anything else, must be, and is, dynamic - not static.

The most obvious change will be in the number of Amateur Radio operators. As noted in "Here and There" on page 5, 31,385 new hams were licensed in July. It's safe to say that most of those new hams are no-code Techs. The rate of increase in new licensees will probably slow a bit after while, but I believe the growth in our numbers will continue at a much higher rate than our hobby has seen for a long, long time.

Nearly all of us who are now Radio Amateurs did qualify for our licenses by passing both written and code examinations. The no-code Techs became hams by passing only a written exam. *This does not make a no-code Tech any less a Radio Amateur than those who passed a code test!* They passed a written exam, they have FCC-issued Amateur Radio licenses: *They are Amateur Radio operators, just as are the rest of us.*

Since the no-code Tech provides privileges only above 30 MHz (thus, they have access to all bands from six meters up), the VHF spectrum is going to see even more heavy use than before the no-code Tech. Repeater coordinators (bless them!) who are already being heavily pressured to find scarce repeater frequencies are going to find the going even tougher as requests grow for new frequency allocations. (That makes our loss of 220-222 MHz an even worse situation than it was. Thanks, UPS and FCC!) Amateurs, however, are resourceful. I'm hopeful, even confident, that some solutions will be found. Among other things, I'd guess that CTCSS ("PL") will be used on more and more repeaters so that repeaters may be placed a little closer together.

Another plus to a much larger Amateur Radio population is that "in numbers, there is strength." (I don't remember who said that first, but it wasn't me.) But, it's true. More hams, more clout with politicians. Maybe we will even be able to get the FCC's attention once in a while.

Not all, but certainly some, of the no-code Techs, after discovering that ham radio is fun, will upgrade, too.

As with any other new licensee, should a no-code Tech ask you a question, be thou not a grinch! If he or she needs an answer to a question, provide the answer. If you don't know the answer (it IS possible, you know), tell him or her you don't know. If you know someone who CAN provide the information being sought, refer them to that individual. *If you are now a "seasoned" ham, remember that, when you were first licensed, YOU were the beginner asking questions.*

Finally, to the new no-code Techs:

(1) If you do have a question or questions, please ask! If you're unfortunate enough to ask a "grinch," ask someone else.

(2) Amateur Radio procedures and "lingo" are pretty simple, generally speaking. If you have come into Amateur Radio from CB, *please* try to rid yourself of the use of CB terminology. That will, among other things, help us older fogies to understand what you are saying.

(3) I do hope that many of you will eventually upgrade your licenses. That will make it possible for

Dueling Photographers



When your BSSS editor snapped a photo at the Madison Swapfest in April, he found this in his viewfinder. We assume that Steve Polishinski, WB9YSD, who is on the operating end of his camera, found a similar-looking photo in his finished pictures. □

you to enjoy more of Amateur Radio and all that it has to offer you.

(4) Remember that you are just as much an Amateur Radio operator as the rest of us.

(5) If you live in an area which has an Amateur Radio club, consider joining it. There are lots of great people you will meet, and lots of activities you will enjoy.

(6) Also consider joining the American Radio Relay League. You have probably received an invitation to join the League; please do so!

(7) Finally, *welcome to the wonderful world of Amateur Radio. Enjoy!*

- Jim Romelfanger, K9ZZ

Riverland Amateur Radio Club

ADDENDUM TO MINUTES: After the meeting was adjourned, it was re-opened. At this time, the club adopted a policy concerning guidelines for the use of the club's communications trailer.

Karl Simonson, KB9EQI, Secretary

Absent Club Info; Exam Schedules Needed

• Information from two participating clubs had not been received at press time: the Racine Megacycle Club and the Northern Wisconsin Radio Club. As we have told our readers in the past, if the first day of the next month is a Monday, we **MUST** move printing back one full week

to the preceeding Monday.

• Volunteer examination teams are encouraged to send their exam schedules to BSSS. You are providing a service by giving exams; we can help you provide your service by publishing your schedule. It works best when we work together!

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Taylor County Area Amateur Radio Club

Rolland Walty, W9LEE, Secretary

W4117 Highway 102 • Westboro, WI 54490

Next club meeting: October 10 at 7 p.m. in the Courthouse Annex, 2nd and Ogden, Medford, WI.

ARES Net Wednesdays at 8:30 p.m. on the Medford repeater, 147.15/.75.

Minutes of September 12 Meeting

Meeting was called to order by President N9GEN at 7:20 p.m. Present were W9QHI, WD9-FWP, N9GHZ, N9GEN, KB9BLV, W9LEE, KE4FE, and N9FZD.

Minutes of last meeting were read and approved. Treasurer's report was indicating a balance of \$357.57 read and approved.

N9GHZ announced that the Multi-Purpose Building has been secured for the October 5 VEC tests, and that signs are being prepared by KA9-UXN's XYL.

Motion made and approved to compensate

N9GHZ for phone calls made to locate test site.

N9GHZ reported no reply to request for additional antenna space on repeater tower, also that Motorola equipment for trial on our repeater will soon be ready.

Linking of Sheldon and Medford repeaters discussed briefly, also digipeater interference problems.

Motion was made to sponsor a Boy Scout Explorer Troop. Motion carried by a vote of 7 to 1, the "no" vote being cast by W9LEE.

Adopt-a-Highway program was discussed. Motion approved to apply for segment of Highway 13 north of Medford.

N9GHZ reported that ATV antennas have been installed at nursing home and elderly housing sites in Abbotsford, to be used for the Christmas Parade.

No other business. Meeting adjourned at 9:02 p.m.

Rolland Walty, W9LEE, Secretary

PBBS Operator vs. the FCC

Richard White (KA3T), a ham accused by the FCC of allegedly permitting his packet station to automatically retransmit business related traffic, has taken another step in his fight to clear his name. Through his attorney John McVeigh, KD4VS, White has filed a formidable Petition for Reconsideration that demands that the FCC withdraw and expunge the January 25th (1991) Notice of Violation that charged KA3T with violation of Section 93.113(a) of the Commission's Amateur Service rules.

White was one of ten packet BBS SysOps cited by FCC Engineer J. Jerry Freeman, W4JJ, after an anti-middle east war message, allegedly posted by Joseph Reed, WA3QNS, began making the rounds of the packet boards along the east coast. Reed has maintained that he never posted the message of the "Coalition to Stop United States Intervention in the Middle East." He said that some other ham had probably used his callsign, but the FCC, believing him to be the responsible party, fined him anyway. Reed was also barred from access to packet bulletin boards in his area by some very angry local hams who also received citations and fines from Engineer Freeman.

While little has been heard from Reed, it is quite a different story regarding Richards and the other PBBS operators who received citations from the FCC. All have maintained that the automatic nature of packet message forwarding precludes any real-time monitoring of such communications. The FCC engineer disputes this stand, saying that the nature of any form of communications does not exempt it from all aspects of the Amateur Part 97 rules, including those regarding the transmission or retransmission of business-related traffic. Engineer Freeman was able to cite the packet operators

because the posting of the coalition's bulletin included a toll-charged 900 telephone number which provided automatic operating revenues to the group.

In March, most of the packet board operators received letters from Freeman indicating that no further enforcement action would be taken against them, since, in his view, all had taken the needed action to preclude what he saw as further abuses of the rules. He also modified the language of the original charge to include the word "may" to modify his stand that violations had actually occurred, and he also suspended payment of the fines to all involved except the alleged originating station. With this action, it appeared that the FCC had gone on the defensive and was now trying to back away from its previous stand and let the matter die quietly.

But this was not enough to quell the anger in the Amateur Radio community toward what most hams felt was an abuse of power by Mr. Freeman. At least one ham, Richards, decided that nothing short of a full, open public apology and a complete public vindication of his name and license would be acceptable. He hired attorney McVeigh, filed his first demand for retraction and expunging of his file, with the full backing of most of the nation's packet radio community.

In his filing for White, Attorney McVeigh states that his client was not a part of any violation, real or imagined, on the part of the FCC, because the message header did not include White's amateur call; that the message could have and probably had been composed and transmitted by someone without the involvement of White's station, and that the content of the message in question contained First Amendment protected verbiage.

McVeigh, on White's behalf, has again requested that the FCC either withdraw all charges immediately or remove any records from his client's file

Madison Amateur Radio Novice Class Announced

With an Amateur Radio license, you can learn technical skills, help in emergencies, and talk to an international network of friends.. from your home. People from all walks of life enjoy ham radio. You can, too. The Four Lakes Amateur Radio Club, in conjunction with the MATC Electronics Club, is sponsoring a Novice license class for beginners. In nine weeks, you'll be ready for your Novice license test. Come to the first class at 7 p.m. on Wednesday, October 2 at Room 137B on the Madison Area Technical College Campus. (It may be possible for you to begin at the second meeting of the class.) There will be a small fee to cover instructional materials. For information, call Tom Kaminski at 233-1845, or John Lombardo at 246-6627. □

Attention Hamfest Sponsors

Badger State Smoke Signals offers special, low rates for non-commercial advertising. Here is the rate schedule.

Hamfest/Swapfest Business Card	\$55.00 per year
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Hamfest Flyer reproduction only	\$28.00
Two insertions	\$50.00
Additional insertions	\$22.00 each

There is no added charge for business card swapfest advertisers for the first hamfest/swapfest flyer reproduction. Additional insertions under this plan are \$22.00 each.

* When we reproduce a swapfest/hamfest flyer, we reduce it slightly to make it a two-column display ad. These ads generally are about nine inches high. The regular business advertiser rate for this space would be \$45.00 for one insertion (\$84.60 for two insertions). The saving for a non-commercial advertiser is \$17.00 for one run, and \$34.60 for two runs.

The business card (see back page) plan, which includes one free flyer insertion, would cost \$105.00 at the regular commercial rate. The saving to non-commercial advertisers is \$50.00 for one flyer run, and \$67.60 for two runs.

Hamfest/swapfest advertisers are responsible for keeping their card ads updated with information about their events (date, etc.).

For more information, please contact Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901, or call Ken at (608) 742-3560. □

that show the issuance of a Notice of Violation having been issued. It is unknown what further action White is considering should the Commission fail to comply with his demand, but action in federal court appears likely.

- Westlink Report, 8/30/91

Yellow Thunder Amateur Radio Club



K9ODK
WB9FDZ

Duane Grotophorst, KA9HKL, Secretary
E5767 South Line Road • Loganville, WI 53943

Minutes of Sept. 12 Meeting

The meeting was called to order at 7:44 p.m. by the president, Art Kleefisch, W9WSS. The following members and guest were present:

Art Kleefisch, W9WSS	Baraboo
Rick Wegner, N9MME	North Freedom
Tom Thompson, N9LLF	Sauk City
Raymond Matlosz, N9MLZ	Reedsburg
Bob Sauvan, WT9Q	Sauk City
Harry Westlund, K9EHJ	Baraboo
Duane Grotophorst, KA9HKL	Loganville
Jim Decker, WB9UQT	Baraboo
Anne Klinkner	Sauk City
Bill Klinkner, N9KXX	Sauk City
Jim Pugh, W3VZJ	Sauk City
Jack Kirner, N9LKZ	Prairie du Sac
Ken Ebner, K9EN	Portage
Ken Johnson, K9DZG	Mazomanie
Tom McCann, KB9HAB	Baraboo

Upcoming meeting dates are:

Tuesday, October 15	Room 14
Wednesday, November 13	Room 12

The meeting opened with a round of introductions. The minutes of the August meeting were approved as published, followed by the treasurer's

report, which was also accepted.

Rick Wegner showed the group some award certificates he'd received from the YTARC back in the early 70s.

An old business item brought up was the Sauk County ham list for the Sauk County Emergency Government, with Jim, WB9UQT, having put together a list that is nearly ready. I hope to take the list to the county soon.

Ken, K9EN, reported on the WNA Picnic, held at Ochsner Park in Baraboo. Thanks go to Jim, K9ZZ, for doing the legwork and preparations.

New hams and upgrades in the area are:

Rick Wegner, N9MME, Technician
Raymond Matlosz, N9MLZ, General
Tom McCann, KB9HAB, Technician
Charles Tilton, N9MMV, Technician
Harold Hulterstrum, N9MMG, Technician.

The club voted in three new members. They are Tom, N9LLF; Rick, N9MME; and Tom, KB9HAB. Welcome to the club!

Buck Nite winner was George Halper, W9SUF, who was not present. Next month, the prize will be six bucks.

The meeting was adjourned at 8:43 p.m.

Duane Grotophorst, Secretary

1991 Amateur Radio News Service Publication Contest

The Amateur Radio News Service (ARNS) Publication Contest for 1991 is now accepting entries. The contest is aimed at identifying and recognizing superior performance in Amateur Radio journalism. Submitted publications are ranked and judged and suggestions on how to improve your publication are given.

The contest is open to all Amateur Radio organizations; membership in ARNS is not required. General circulation magazines and professional journals are not eligible for this contest.

Papers will be graded by 3 knowledgeable judges who will award points based on standard publication guidelines. Publications will be classified by club size. Within each classification, publications will be grouped based on the total score computed by the judges and will be awarded a certificate falling into one of the following categories: superior, excellent, or good.

Along with the certificate, each club will receive copies of the judging sheets showing points awarded for each of the areas considered, and each judge's summary critique of outstanding characteristics of its paper and suggestions for improvement. Scores will not be published, but a listing of entrants and the category by classification will be published in a special issue of the *ARNS Bulletin*. The decisions of the judges are final.

To enter, submit two different issues of your publication from the period July, 1990 through December, 1991. The newsletter should be accompanied by a completed 1991 ARNS Publication Contest application.

The deadline for receipt of entries is December 31, 1991. Early submissions will be appreciated. No extension of the deadline is contemplated.

Mail requests for entry forms or entries to: Lee Knirko, W9MOL, ARNS President, 11 S. LaSalle St., Chicago, IL 60603.

- Westlink Report, 9/16/91

Jamboree on the Air

Continued from page 9

40 Meters: CW - 7030 KHz; Phone - 7090 KHz (U.S. not allowed) and 7290 KHz.

20 Meters: CW - 14,070 KHz; Phone - 14,290 KHz.


15 Meters: CW - 21,140 KHz; Phone - 21,360 KHz.

10 Meters: CW - 28,190 KHz; Phone - 28,990 and 28,350 KHz.

Please move off these frequencies once contact has been established. Packet, RTTY, SSTV, and ATV will use usual frequencies. K2BSA will be operating via the OSCARs, as well as the normal HF frequencies.

Post-card size certificates are free, and can be obtained by sending a request, accompanied by a SASE with sufficient postage for the amount requested to: Jamboree-on-the-Air Certificates, S221, 1325 West Walnut Hill Lane, P.O. Box 152079, Irving, TX 75015-2079.

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Editorial

Continued from page 7

bands and other bands, you need to express your views. First, write the major manufacturers today. If they don't hear from you, they won't believe it's an issue anyone takes seriously.

There are very few good reasons to be able to transmit outside of the ham bands anyway, as long as the manufacturers continue to provide general coverage receive. Now, I know there are those who need to use MARS or CAP frequencies. As in the case of the 10 meter amplifier ban, proof of license should be required to make the appropriate mods.

Then, write your ARRL director and vice-director and express your ideas regarding this. The ARRL should be taking a leadership role on this issue. They won't if you aren't concerned and you don't write to them.

If you do nothing, you may have to start honing up your DFing skills when illegal activity appears on your favorite band. □

If you want to hear the RAIN Dial-Up Service, including my editorials, you can call (708) 299-INFO. The RAIN Dial-Up is updated weekly. See you next month.

- 73, Mark

New Products

Continued from page 11

monitor memory channels, the complete frequency band, specific parts of the band, and priority channels.


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Official Observer Tips

N9CAP, our Official Observer Coordinator, recommends a transceiver procedure to shorten on-the-air tune-up time. Listen to the background noise in your receiver, and pre-tune the transmitter controls. Then, transmit into a dummy load to quickly complete the tuning.

Also, be careful with split-transmitter capable equipment to avoid being out of the proper portions of amateur bands or out of band completely.

- Richard Regent, K9GDF
5003 South 26th Street
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SEND ADS FOR SSB to either Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901, or Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. There is no charge. □

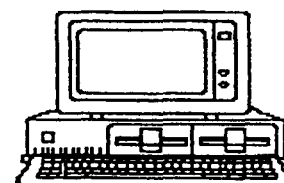
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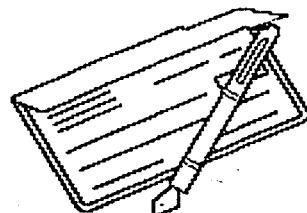


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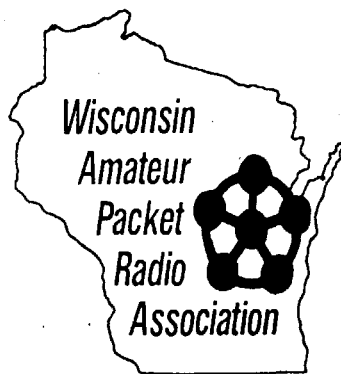
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Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

9600 Baud vs "Voice" Bandwidth.....WB9MJN

Here is a note on Bandwidth of a 9600 baud Direct FSK K9NG Modulation, in comparison to Voice emissions. This note is prompted by comments about the bandwidth by those apparently ignorant of what K9NG Modulation is, at the IRA (Illinois Repeater Association) annual meeting in Normal, IL a few months ago.

A couple of points before I give the results of my measurements. 9600 baud is not 9600 hz. 2 bits fit into a single hertz. A 1 - 0 pattern of 9600 baud data is in actuality a 4800 Hz square wave.

K9NG Modulation is the predominant 9600 Baud technique on Packet Radio today. Equipment for K9NG Modulation Packet Stations is available from TAPR, Kantronics, Gracilus and PacComm. One of the 6 Microsats launched last year, U014, was even equipped with K9NG Modulation on both its up and downlinks, and is working exceptionally well. Multi-hundred Kilobyte file transfers are not an uncommon, easily accomplished operation on this satellite.

K9NG Modulation filters the data with a 5000 hz bandwidth (-3dB) low pass filter before it is applied to the modulator. This turns the single bit signal shape from a half-square wave, to a half-sin wave. The K9NG modem does with analog filtering, and the G3RUH modem with a digital FIR filter.

The Voice bandwidth measurements below were made by reciting the alphabet over and over while monitoring the spectrum analyzer. The transmitter was adjusted for with a 1 KHz modulating tone to 5 KHz deviation (10 KHz peak to peak), per standard two-way radio practice.

The 9600 baud modulation was adjusted to be 3 KHz deviation (6 KHz shift), per the K9NG Modulation specification. Measurements of both the Paccomm NB96 clone of the G3RUH 9600 baud modem, and the original K9NG modem were performed. The G3RUH modem generates K9NG Modulation, and is compatible with the K9NG modem. These two modems, and clones thereof, are the most popularly used on ham radio.

The Bandwidth of the Spectrum Analyzer (IFR-1200S set to 5 KHz/div) was measured to be 4.5 KHz. The horizontal scale of the spectrum analyzer was determined to have an error less than 2 KHz across its 50 KHz sweep. Due to these errors, the signal's actual bandwidths could be up to 5 KHz narrower than measured, since the sweep error is centered on the middle of the sweep, and increases to the screen edges, and the signals were not as wide as entire screen. Therefore, the measurements are most useful as comparisons of 9600 baud packet with voice modulation.

Signal Power! (dB down) !	Voice ! Bandwidth ! (KHz) !	9600 Baud Packet ! Bandwidth ! NB96 (KHz) K9NG
- 10 dB !	15. !	12. 13.
- 20 dB !	19. !	16. 17.
- 30 dB !	22. !	21. 23.
- 40 dB !	28. !	27. 28.
- 50 dB !	33. !	31. 32.

The measurements show that 9600 Baud K9NG Modulation is slightly narrower than Voice Modulation! Additionally, K9NG modulation sounds to the human ear like pinkish white noise. There is no hint of any tonal nature when listening to K9NG Modulation. These two facts make 9600 Baud K9NG Modulation probably the best frequency neighbor to have next to your voice repeater, BETTER EVEN THAN ANOTHER VOICE REPEATER!

If you have heard those who have been working 9600 baud stations comment about the wider-than-standard IF filters needed on 2 meter and some 220 radios, that is due to the distortion the filters cause to the signal, NOT because the signal is any wider than voice. IF filters have a narrow bandwidth with relation to center frequency. So expensive high Q resonators, of either ceramic or crystal are used in the IF filter. To minimize the number of these resonators required, filter designers resort to the Chebyshev filter design. While this is fine for Voice, the Chebyshev filter is particularly bad for use with data signals, due the extreme variations in time delay at different parts of the filter's response. Since this type of filter is the only one readily available to experimenters, an IF filter much wider than the signal must be used for the Data-IF signal to be demodulated. Many commercial radio makers already offer special versions of their radios for data with special data IF filters because of this problem. The time delay distortion in filters is an OLD problem. Its well understood by engineers. Your CD player oversamples because of the practical problems in making a antialiasing low-pass filter not have delay distortion.

The IF filter time delay distortion problem is only a problem for Packet Radios. It has no effect on Voice users. Voice users do not need to modify their radios to avoid the 9600 Baud K9NG Modulation. As measured, K9NG MODULATION IS for all practical purposes THE SAME BANDWIDTH AS standard VOICE modulation.

Don - WB9MJN @ W9IUP

IC-290H Multimode 9600 Baud Mod.....WD6EHR

The IC-290H multimode appears to be well suited for 9600 baud packet - nice wide IF filter, true FM, and easy access to necessary points! Preliminary testing is very encouraging. The mod is simple, and non-destructive! You can still use your rig for voice, packet, etc., if you disconnect the 9600 modem from the accessory socket, or use a relay to connect TXA when the modem keys.

1. Tack solder a thin shielded cable, like RG174U, Radio Shack "microphone cable", etc., (center conductor only) to the junction of varactor diode D-3, C-17, and R-33. This is TXA. Do NOT connect the shield at this end!!! (It'll form a ground loop).

2. Do the same to IC-12 pin 9. This is RXA.

3. Tie the cable shields on the other ends of the cables together and solder these to the ground lug connected to pin 4 of the accessory socket.

4. Solder the TXA cable center conductor to pin 5 of the accessory socket.

5. Solder the RXA cable center conductor to pin 6 of the accessory socket.

Pin #2 of the accessory socket is "send" (PTT).

Pin #3 of the accessory socket is +12 volts, but I'd strongly recommend a separate supply for the modem and TNC. I use a float-charged gel cell.

You now have a 9600 jack - pin 2 is PTT, pin 4 is ground, 5 is TXA (transmitter varactor modulator - direct FM), 6 is RXA (discriminator output, with no shaping-filtering)

*** NOTE *** Make sure you don't have DC going into the TXA or RXA. If in doubt, use a pair of 5-10 mf non-polarized capacitors in series with the wires going to pins 5 and 6.

Mike - WD6EHR @ N6YN

TM-631 / KPC-2 Key-Up Problem Solved.....KA8WNU

Concerning Kenwood TM-631 interface with Kantronics KPC-2 (and possibly others)

Problem: Instant key-up when connecting interface cable.

Reason: 1. Leakage current in Kantronics PTT transistor.

2. Very lightweight pull-up resistors on control lines on mic jack.

Solution: Add 4.7K 1/8 Watt resistors across existing pull-up R's, these are chip R's in radio, added R's were available at Radio Shack in a variety pack, if you still have some of these, you're in luck, if not try chip assortment #271-313, the values you need are probably there, (or some reasonable facsimile thereof). In any case what you need to do is add more pull-up current to mic control lines, 47K is not enough. Parallel new components with existing, do not try to remove existing ones, it's not necessary, space is at a premium, keep profile low. R numbers are 132, 133, 134 located on logic board on face plate, immediately adjacent to mic jack they are I.D.'ed as 473 (47K). As always, do not touch soldering iron on ANY chip component connection, let solder flow over to it.

Jeff - KA8WNU @ WB8BII

organization as the date nears to find if there have been any changes in dates or locations.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.



FOR SALE: Linear Amplifier, 10-80, HeathKit SB200, Completely checked over by HeathKit: Asking \$325.00. Also have 3 UHF-VHF crystal scanners (one a portable), call for detail. Also 2 microphones, one Shure 444 for \$40.00 and a chrome Asztec model 104 with amp for \$45.00. Carl, N9JXB, Rte. 2, Box 449, Wautoma, WI 54982. (414) 787-4978.

FOR SALE: tower - 60 foot self-supporting by Delhi. Similar to Rohn, but manufactured in Canada. With 3 piece base unit. \$350.00 FOB at Plover. Dan Schobert, W9MFG, Box 558, Plover, WI 54467. (715) 341-4927.

WANTED: Power supply for the Apple, Apple II, AppleII+ or Apple IIE computer. If anyone knows of a supply hour, or has one for sale, please contact: Ray Greisinger, WA9PHF @ KA9WPG or 2747 Brookview Dr., Green Bay, WI 54313. (414) 434-2948.

WANTED: Drake AC-3 or AC-4 power supply. The primary in my power transformer has a dead short, and Drake doesn't have any more. Harry Eckland, W9SKX, N8803 County Hwy A, Fish Creek, WI 54212. (414) 839-2788.

LAST MINUTE ARRIVALS

NORTHERN WISCONSIN RADIO CLUB

The next meeting of the NWRC will be October 22 at the Peppermill Restaurant in the Thunderbird Mall, Menomonie. Meeting time is 7:30 pm. and the program is the election of officers. Dues are due for the 1992 year (\$5.00 or if you wish to receive BSSS \$10.00). Orders for the "Who's Who" photo album will be taken at the October meeting.

NWRC Sec, Treas, Steve Hart, KA9OMC

RIVERLAND AMATEUR RADIO CLUB

The meeting time of the club as shown in the Meetings column should be changed to 7:45 pm.

THE UNIVERSAL INTERIM REPORT

This report describes the analytical study of feasibility of implementing an integrated system. The _____ and _____ systems were reviewed, their similarities and differences were collated, and an integrated system was formulated. An analysis was conducted to fully identify the synergistic capabilities of the integrated system. The system description and design specifications of the hardware and software was prepared, a comparative analysis was conducted between the integrated system and an unmodified combination of the two systems. Comparison was made in the areas of cost, complexity and operational capability, the feasibility of developing an autonomous integrated _____ was documented and an implementation plan for design, development and test has been written.

Our biggest problem is apathy - but who cares?

Up, Up, and Away!

==thud==

Ooops, wrong suit!

PK-232 / TS-440S - TS-850S Ground Loop Fix.....

I have had a persistent TX audio hum in my TS-440S transceiver ever since I hooked up my PK-232MBX for HF Amtor and Packet. Every time I wanted to operate SSB, I had to disconnect the plug from the PK-232 to the TS-440S AFSK IN. This got to be a pain, but it did break the ground loop and stop the hum.

Through the persistence and courtesy of KD4PY, Jim, we now have a simple fix. It seems that cutting the load resistor on the TX Audio line in the PK-232 does the trick.

On the PK-232, if you use J4 (Radio 1) for HF, the resistor is designated as R151, 680 ohms. If you use J6 (Radio 2) for HF then the designation is R152. Look at the schematic of your PK-232 to make sure. It is located right behind J4 (or J6). Either cut or remove that resistor and the ground loop is broken.

Check your TX Audio level after you have removed the resistor to insure that you are not over driving the transceiver. You WILL have about 5 times more audio! Maximum AFSK IN drive to the transceiver is 100mv. My level was right on the money at 100mv, but you need to make sure in your setup.

I have made this simple mod to my PK-232 with complete success. Jim has made this same mod to his PK-232 which is driving a TS-850S also with complete success.

Obviously you make this mod at your own risk. I can't guarantee the results, but Jim and I have both have had full success. I hope it solves a problem for you too.

Dex - K4TSY @ WD4HIM

THE TEST POINT (continued from page 3)

St Paul, Ralph Andrea, (612) 739-0279
Brooklyn Park, Arthur Jensen, (612) 888-6187

The above Minnesota test are listed as a help to readers near or traveling thru the area. If you are interested in any of these, please save this listing as we may not always have space available to list them. Thanks to "Ground Wave" for the above information.

If you plan on taking any of the exams, it is suggested that you contact the sponsoring

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